Monetary Policy

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Monetary Policy: Past and Present

Past

- In the past, governments used to issue money and central banks used to be placed under the authority of political power.
- Central banks used to adopt binding measures to control money supply: tight regulations on credit granted by commercial banks.

Present

- Most central banks now are independent from the government (at least in the U.S. and in Europe).
- Monetary policy now is characterized by a management approach of the control of money supply. Central banks use instruments likely to influence monetary creation by commercial banks, i.e. credits granted to firms and households.

The Transmission Mechanism of Monetary Policy

The transmission mechanism on real economic variables

When central banks modify liquidity in the monetary market, they affect the short-term interest rates. These variations in the short-term interest rates modify certain economic behaviors:

- Consumption and saving
- Residential and corporate investment
- The relative price between domestic and foreign goods. This affects the trade balance.
- Public debt
- The banking sector

The Transmission Mechanism of Monetary Policy

The transmission mechanism on monetary variables

- In the medium and long term, a change in money supply has only one effect of the same direction and magnitude: a change in the inflation rate. This is the Quantity Theory of Money.

- In the short term, it is reasonable to assume that prices of goods and services are sticky. In particular, nominal wages (prices on the labor market) determined by labor contracts are rigid (while asset prices are very volatile). Therefore, this price stickiness allows central banks to manipulate the short-term interest rates in order to modify production and employment in the short run. In economics, if prices are fixed, then quantities must adjust. This is the essential insight from the Keynesian approach.

- Money demand is also a function of the interest rates.

The Transmission Mechanism of Monetary Policy

Neutrality of money?

This is the most important issue in monetary economics.

From a pragmatic perspective, all central banks consider that monetary policy does have short-term effects on economic activity. It is said that monetary policy have *real* short-term effects.

Therefore, we can say that money is not neutral in the short-run but it is in the medium and long term.

The Objectives of Monetary Policy

The plurality of the possibles objectives :

- Price stability
- Economic growth and full employment
- Sustainability of the balance of payments
- Financial stability

The Objectives of Monetary Policy

These objectives are difficult to achieve simultaneously :

- The various possible objectives are all desirable but cannot be achieved together simultaneously.

Therefore, it is necessary to make a choice among them.

- In the 1960s, the objective of monetary policy was more economic growth and full employment rather than price stability. This relative disregard for inflation came to a halt in the 1970s as inflation rates increased substantially.

- At the beginning of the 1980s, most central banks made price stability the main priority of monetary policy.

The objectives of the European Central Bank (ECB)

- The objective of the ECB : price stability.

  Article 105 of the Maastricht Treaty states: « *The primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2. …* »

- What is price stability?

  The ECB has defined this objective: it is an annual inflation rate below, but close to, 2% over the medium term.

(In the U.S., the Federal Reserve has not explicitly defined a price stability objective. Markets consider that the implicit inflation target is 3% per annum.)

The Tools of Monetary Policy

The central bank has no tools at its disposal to directly influence the various possible objectives of monetary policy. As a result, it must choose reachable goals, which effectively have an impact on the objective of monetary policy. These reachable goals are called « intermediate targets ».

Intermediate targets of monetary policy

There is no pre-defined intermediate targets. These targets must be just measurable, under the control of the central bank, and have an effective impact on the monetary policy objective. The two intermediate targets are generally:

- The growth of money supply
- The interest rates

The Tools of Monetary Policy

Both intermediate targets are measurable, have impacts on the monetary policy objective and are under the partial control of the central bank.

Why partial ?

- Because the central bank does not directly control money supply but does control the monetary base. Since there is a link between the monetary base and money supply, the central bank can control money supply indirectly.

- Because the central bank controls only the short-term interest rates. What matters for investment is the long-term interest rates. However, the yield curve shows that there is some connection between the short-term and long-term interest rates.

The Tools of Monetary Policy

Thank to the two defined intermediate targets, the central bank can influence the possible monetary policy objectives, namely the main objective nowdays: price stability.

Once the targets have been defined, the central bank can intervene in the monetary market to control the intermediate targets. To do so, it can use specific tools called « monetary policy instruments ».

The Tools of Monetary Policy

The instruments of monetary policy are:

- **Open market operations** (the refinancing rate in the eurozone, the Federal Funds rate (« the Fed Funds ») in the U.S.)

- **The interest reates on the marginal lending facility and the deposit facility** in the eurozone, the **discount rate** in the U.S.

- **The exchange rate**

- **The reserve requirement ratio**

- **Growth of monetary base (« high-powered money »).**

The main instrument is: open-market operations, which result in setting the overnight interest rate.

Which Policy Strategy for the Central Bank ?

Rules versus *discretion* in monetary policy?

- **Discretionary monetary policy**: the monetary policy is adjusted as econcomic and financial circumstances change.
- **Monetary policy rule**: the central bank defines a policy objective (inflation rate, for instance) and uses the instruments at its disposal to achieve this objective regardless of the changes in economic and financial circumstances.

Which Policy Strategy for the Central Bank ?

Example of discretionary monetary policy:

- A shock on oil prices :

  If the oil price goes up substantially but for a specific reason such as a war in an exporting oil country, the probability that this price rise is temporary is quite high. In that case, the central bank can take these circumstances into account and refrain from reacting in the monetary market.

  The Federal Reserve is generally known for adopting such monetary policy strategy.

Which Policy Strategy for the Central Bank ?

Monetary policy rule :

The other monetary policy strategy of the central bank is a rule announced to the economic agents and which it tries hard to convince them that it will stick to it.

For instance, two types of rules :

- **Monetary targeting**

  The central bank announces to the economic agents that it will intervene in the monetary market so that the growth of money supply will not exceed x% annually. This type of policy was advocated by Milton Friedman and its followers (the « Monetarists »).

- **Inflation targeting**

  The central bank announces to the economic agents that it will intervene in the monetary market so that the inflation rate will not exceed x% annually. This is the policy strategy of the ECB, which set the targeted inflation rate below, but close to, 2% in the eurozone.

Which Policy Strategy for the Central Bank ?

Why a rule ?

- Monetary policy with little intervention of the central bank. The Monetarists and, above all, the New Classical Economists consider that a discretionary monetary policy generates macroeconomic instability.

- Credibility. Inflation is a phenomenon in which economic agents' expectations play a big role. Therefore, it is generally admitted that if the central bank sticks to a rule, then expectations will incorporate this information. A monetary policy rule thus allows the central bank to establish credibility with respect to the economic agents.

  In an economy where the currency is totally dematerialized (fiat money) as it is nowdays in every country, trust in that currency relies on price stability, and hence, on the credibility of monetary policy.

Which Policy Strategy in Reality ?

The choice of the policy strategy claimed by a central bank can turn out to be a little bit different from the monetary policy that is effectively observed.

In general, if the central bank announces a rule, this means that it will set the interest rate according to the economic circumstances and the monetary policy objective (price stability).

Then, at which level must the interest rate be to reach the targeted inflation rate ?

The Taylor Rule

John Taylor proposed an anwser to this question by testing a reaction function for the central bank called after him «Taylor rule»:

$$i = i^* + a(\pi - \pi^*) - b(u - u_n)$$

- *i* is the level of the nominal short-term interest rate to be determined (this is the dependent variable);
- i^* is the targeted nominal short-term interest rate compatible with the targeted inflation rate π^*;
- π is the current observed inflation rate;
- *u* is the current observed unemployment rate;
- u^* is the natural rate of unemployment.

This rule summarizes pretty well the observed behavior of the central bank's monetary policy of the last 20 years in the U.S. but also in Germany.

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